

DATA SHEET

ESPRIMO E3520 E-Star 5.0

Your flexible economy PC

Issue: September 2009

ESPRIMO E3520 E-Star 5.0

The ESPRIMO E3520 E-Star5 is the right choice for large enterprise customers requiring the latest standard performance features. This small form factor PC, less than 13 litres in volume, combines top performance and extremely attractive prices. Equipped with a power supply unit with up to 87% efficiency and selected components it meets the ENERGY STAR® standard, thus saving energy and protecting the environment. Freely configurable, with proven technology and an extended product lifecycle of 12 months, this PC is the perfect choice for cost-driven projects.



Excellent price / performance ratio

Cost-effective system for major customer projects

- Entry-level PC with standard technology

Flexibility

Freedom of choice with tailored systems, perfect fit for specific requirements

- Flexible logistic concept - customizing program (made4you)



Reliability

Excellent quality and functional stability

- Proprietary development and production in Europe

Lifecycle

Hardware continuity for long lasting project needs

- Managed lifecycle up to 12 months

Meets Energy Star® 5.0 and Blue Angel standards

Low power consumption and low costs, without any loss in performance.

- Effective power supply of up to 87%



Components

Processor	Intel® Core™2 Quad Q9550 (2.83 GHz, 12 MB , 1333 MHz)
	Intel® Core™2 Quad Q9650 (3.0 GHz, 12 MB , 1333 MHz)
	Intel® Core™2 Quad Q9505 (2.83 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Quad Q9400 (2.66 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Quad Q8300 (2.5 GHz, 4 MB , 1333 MHz)
	Intel® Core™2 Duo E8600 (3.33 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Duo E8500 (3.16 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Duo E8400 (3.0 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Duo E7600 (3.06 GHz, 3 MB , 1066 MHz)
	Intel® Core™2 Duo E7500 (2.93 GHz, 3 MB , 1066 MHz)
	Intel® Core™2 Duo E7400 (2.8 GHz, 3 MB , 1066 MHz)
	Intel® Pentium® E6300 (2.8 GHz, 2 MB , 1066 MHz)
	Intel® Pentium® E5400 (2.7 GHz, 2 MB , 800 MHz)
	Intel® Pentium® E5300 (2.6 GHz, 2 MB , 800 MHz)
	Intel® Pentium® E5200 (2.5 GHz, 2 MB , 800 MHz)
	Intel® Celeron® E3200 (2.4 GHz, 1 MB , 800 MHz)
	Intel® Celeron® E1500 (2.2 GHz, 512 KB , 800 MHz)
Memory modules	4 GB (1 module(s) with 4 GB) DDR2, 800 MHz, PC2-6400
	2 GB (2 module(s) with 1 GB) DDR2, 800 MHz, PC2-6400
	2 GB (1 module(s) with 2 GB) DDR2, 800 MHz, PC2-6400
	1 GB (1 module(s) with 1 GB) DDR2, 800 MHz, PC2-6400
Hard disk drives (internal)	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 3.5-inch, S.M.A.R.T.
Hard disk notes	Supporting NCQ and 3 GBit
Graphics add on cards (optional)	DVI Adapter
	NVIDIA® Geforce® 9300GE low profile 256 MB
	NVIDIA® Geforce® 9300GE low profile 512 MB
	NVIDIA® Quadro NVS 290 low profile 256 MB
Modular bay options	1.44 MB Floppy, standard
	Blu-ray Disc Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, 3,5-Inch
Interface add on cards/components (optional)	
	Parallel Interface
Base unit	ESPRIMO E3520 E-Star5
Mainboard	
Mainboard type	D2841
Formfactor	µATX
Chipset	Intel® G41
Processor socket	LGA 775
Processor quantity maximum	1
System bus (FSB / HT / QPI)	up to 1333 MHz
Memory slots	2 DIMM (DDR2)
Supported capacity RAM (max.)	8 GB
Memory frequency	800 MHz
Memory notes	Dual channel support. For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same.

Mainboard

LAN	10/100/1000 MBit/s Broadcom BCM5784M
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	High Definition audio, 5.1 surround sound

I/O controller on board

Serial ATA total	4
thereof eSATA	0
Controller functions	Serial ATA II NCQ and 3 GBit AHCI

Interfaces

Audio: line-in / microphone	1
Audio: line-in	1
Audio: line-out	1
Front audio: headphone	1
Front audio: microphone	1
USB 2.0 total	8
USB front	2
USB rear	4
USB internal	2
VGA	1
DVI	optional
Serial (RS-232)	1 (9pi, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	optional (25pin with EPP and ECP)

Input device / components

Optical USB wheel mouse
Optional: Optical USB/PS2 tilt wheel mouse

Drive bays

Drive bays total	3
3.5-inch internal bays	1
3.5-inch external bays	1
5.25-inch external bays	1
Drive bay notes	optional external bay as internal 3,5"

Slots

PCI-Express x16	1 x (210 mm) low profile
PCI-Express x1	1 x (210 mm) low profile
PCI (32-bit / 33 MHz)	2 x (170/ 190 mm) low profile

Graphic on board

Graphics brand name	Intel® GMA 4500
Shared video memory	up to 256 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel

Graphic on board

TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
Graphic notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size Resolution (color depth up to 32 Bit/pixel) For TFT we recommend to use 60Hz.

Electrical values

Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 86% / 88% / 85%) 0-Watt mode with hard-off switch
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Operating voltage range	90 - 264 V
Operating line frequency range	47 - 63 Hz
Max. output of power supply	250 W
Power factor correction/active power	active
Monitor outlet	No

Power consumption

Power consumption note	see white paper Energy Consumption
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=64f304e7-22c2-4e77-9e73-a7ab6f7b8d99

Heat dissipation

Heat dissipation notes	see white paper Energy Consumption
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Noise for standard configuration (HDD, ODD, FDD)

Noise emission	According to ISO9296
Related Processors for noise	Intel® Core2™2 Duo E8600
Noise Operation mode 1: ODD load (Blue angel requirement)	4.4 B / 29 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	4.1 B / 26 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	4.0 B / 25 dB(A)
Noise Operation mode 4: High load	4.1 B / 26 dB(A)
Noise Operation mode 5: Office applications	4.1 B / 26 dB(A)
Idle mode (Blue Angel requirement)	4.0 B / 24 dB(A)
Noise notes / description	A weighted sound power level L _{wad} (in B) / workplace related A-weighted sound pressure level L _{pAm} (in dB(A)), Bystander position

Dimensions / Weight / Environmental

Dimension (W x D x H)	405 x 330 x 105 mm
Operating position	Vertical / horizontal (optional, feet needed)
Weight	approx. 10 kg
Weight notes	Weight may vary depending on actual configuration
Operating ambient temperature	15 - 35°C

Compliance

Product	ESPRIMO E3520
Model	DTL1-D2841
Germany	Blauer Engel / Blue Angel in progress GS
Europe	CE
USA/Canada	FCC Class B CSA

Compliance

Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver
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Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx
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Operating system

Operating system optional preinstalled	Microsoft® Windows Vista® Home Basic Microsoft® Windows Vista® Home Premium Microsoft® Windows Vista® Business 32bit TwinLoad Microsoft® Windows® XP Professional (DVD)
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Operating system compatible	Linux
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Additional Software

Additional software (preinstalled)	Nero Essentials (burning software)
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Additional software (optional)	Recovery DVD (Windows® XP / Windows Vista®) Drivers & Utilities DVD (DUDVD) Windows Vista® Drivers & Utilities DVD (DUDVD) Windows® XP
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Compatibility (references)

DMI 2.0
PC 2001
WMI 1.5
USB 2.0

Manageability

Manageability features	DeskUpdate Driver management DeskView Migrate (optional) DeskView Control (optional) PXE 2.1 Boot code Wake up from S5 (off mode)
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DeskView features	WoL (Wake on LAN)
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Manageability link	http://ts.fujitsu.com/manageability http://www.altiris.com/fsc
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Security

Physical security	Kensington Lock support Eye for padlock
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System security	Boot sector virus protection Write protect option for the Flash EPROM Boot protection for floppy disk / CD drive and write protection for floppy disk drive Control of all USB interfaces
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User security	User and supervisor BIOS password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
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Packaging information

Packaging dimension	500x290x540 mm
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Max. quantity / pallet	24
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Material - Weight (g) Carton	1270 g
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Material - Weight (g) EPS / PS	200g
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Material - Weight (g) PE	appr. 60 g
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Packaging notes	printed user documentation is bleached in chlorine free process
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Warranty

Standard Warranty	1 year
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Service level	(depending on country)
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Maintenance and Support Services - the perfect extension

Recommended Service	5x9, Response Time: Next Business Day
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Spare Parts availability	5 years
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Service Weblink	http://ts.fujitsu.com/Supportservice
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Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:

<http://ts.fujitsu.com/aboutus>

Take back and Recycling information:

<http://ts.fujitsu.com/recycling>

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